CLOSING SESSION

ICAO's Commitment to Mitigating the Volcanic Ash Hazard

On Thursday morning, Mr. William Voss, Director, Air Navigation Bureau, ICAO, was represented by Mr. Raul Romero, Technical Officer, Meteorology Section, International Civil Aviation Organization. Mr. Romero addressed the background of the ICAO and WMO involvement in volcanic ash, with respect to airline regulations and the formation of the Volcanic Ash Advisory Centers and the International Airways Volcano Watch. He stressed the importance for the volcanic ash community to continue to work together, especially in the areas of communications, training, and education.

Conference Highlights

The overall goal of providing a forum for exchanging scientific and operational information for the purpose of identifying ways to improve the mitigation of the volcanic ash hazard to aviation was met. With over 20 countries represented, this conference provided an unparalleled opportunity for the attendees to network and strengthen the partnerships in mitigating the volcanic ash hazard. The key stakeholders represented included government and academic scientists, operational meteorologists, product developers, aviation regulators, pilots, dispatchers, and international organizations dealing in aviation and meteorological matters. The operational components of the International Airways Volcano Watch team were represented, including all the VAACs, the volcano observatory community, and many of the Meteorological Watch Offices (MWO). With a goal of reducing volcanic ash encounters to zero, two basic actions emerged from the conference: sustained vigilance and regional workshops. Sustained vigilance in order to avoid complacency, and additional regional workshops in order to improve implementation of the International Airways Volcano Watch.

Building on Our Successes in Aviation Safety for the Next Decade

Identify new operational needs/requirements and the research and development needed to satisfy those requirements. These included:

- Need for additional information in PIREPs for use in defining existence or dissipation of volcanic ash.
- Definition of the airlines' need for 5-minute notification of volcanic eruption.
- Optimizing current satellite sensors for ash detection, including ensuring volcanic ash community is directly involved with satellite detection research projects (e.g., SO_2 detection).
- Need for more access to airlines reporting engine problems from volcanic ash encounters after-the-fact to be able to study the effects of damage.
- Provide satellite requirements for volcanic eruptions and ash plumes to the Group on Earth Observations (GEO) Architecture Subgroup for critical elements for the Global Earth Observing System.

Where possible, match operational and research and development needs/requirements to ongoing programs/projects to maximize partnership effort.

- NASA will continue to leverage resources in their aviation weather research, especially the areas for hazard mitigation research associated with the Advanced Satellite Aviation-Weather Products project.

- FAA's Aviation Weather Research Program provides opportunities for collaboration on mitigation of volcanic ash in the Oceanic Weather Product Development Team.

Develop a roadmap for improved volcanic ash-related education, training, outreach, and decision tools.

- Conduct regional workshops to provide training on the volcanic ash and aviation safety issue and improve implementation of the International Airways Volcano Watch. Especially, refine communications protocols through table-top exercises, multiagency operational plans, etc.

- Recommend ICAO provide a website for an international source of training materials.

- Conduct training for both sources and users (volcanologists/meteorologists & Automated Flight Service Station personnel/airline dispatchers/aircrews).

- Develop a final four-dimensional graphic of the volcanic ash situation and expected changes for both airline pilots and dispatchers.

Develop a framework for improved partnerships within the international volcanic ash community to leverage resources and capabilities across the spectrum of operations and research and development.

- Identify additional sources of funding within WMO, ICAO, and U.S. agencies for improvements to communications (e.g., between MWO and VAACs) and training.

- Form an aviation issues group within IAVCEI for addressing volcanic ash mitigation for airline safety. In addition, work with the IAVCEI Commission on Education to provide training to vulcanologists on the effects on aviation safety.

- Create a new list serve on the internet focused on ash mitigation issues, particularly those covered during the conference.

Next Steps

The OFCM Working Group for Volcanic Ash (WG/VA) will take action on the conference action items and recommendations including: (1) seek help, input, and advice from international partners and the International Civil Aviation Organization, (2) sort action items and recommendations into short- (0-12 month), mid- (1-4 year), and long-term (4-10 year) actions and prioritize them, and (3) develop and gain approval of a Volcanic Ash Implementation Plan, outlining program goals, operational needs/requirements, and R&D needs and priorities, within the next 12 months. OFCM will publish a proceedings volume from the conference by early fall.